The Impact of The Characteristics of the Board of Directors on Auditor’s Opinion Shopping:
Evidence from Egypt

Yasmena A. Elashmawy
Department of Accounting, Faculty of Commerce
Mansoura University, Damietta, Egypt.
yasmenaibrahim@mans.edu.eg

Keywords:
Opinion shopping, board of directors, task duality, corporate governance, the presence of women, the size of the board of directors.

APA:
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Abstract

The current study aims to identify whether Egyptian companies engage in auditor’s opinion shopping and examines the impact of the characteristics of the board of directors on auditor's opinion shopping in the Egyptian environment. The characteristics of the board of directors are represented in the size, the independence, role duality of the chairman, the presence of women and the experience of the board of directors. The researchers used a sample of 449 observations from non-financial companies listed on the Egyptian Stock Exchange during the period from 2017 to 2021. Using the logistic regression model, the results of hypothesis testing showed that the Egyptian companies successfully engage in auditor’s opinion shopping. In addition to that there is an inverse relationship between the independence of the board of directors and auditor's opinion shopping. As well as there is a significant inverse relationship between the financial expertise and auditor's opinion shopping. On the other hand, the results showed that there is no significant relationship between auditor's opinion shopping and each of the size, the role duality and the presence of women.

Keywords

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1) Introduction

Auditor’s Opinion shopping has gained the attention of researchers and legislators on markets and governments around the world, because of its negative impact on the auditor independence and thus the audit quality (Yuejun, 2011). Opinion shopping is an indicator of the auditor's lack of independence, as the auditor becomes unable to resist client pressure and report honestly on the financial statements fairness. The Securities Exchange Commission defined opinion shopping as searching for an auditor willing to support some type of accounting treatment that would assist the company in achieving the report’s informational objectives, even if it would reduce the financial statements reliability (Lee, 2016).

Osma et al. (2022) explained that the auditor’s opinion shopping occurs when the audit client replaces or retains the incumbent auditor with the intention of obtaining a favorable audit opinion. Opinion shopping may also be defined as auditor switching to avoid going concern opinion (Hardi et al., 2020). Opinion shopping occurs when auditors are replaced after issuing audit opinions that are not in favor of the client firms (Liu and Huang, 2024). Opinion shopping can be classified into internal shopping and external shopping of auditor’s opinion. Internal opinion shopping may occur when a company is able to exert pressure on the incumbent auditor to issue a more favorable audit opinion. External opinion shopping may occur when a company that has actually changed the auditor is able to exert pressure on the new auditor to issue a more favorable audit reporting option than the company deserve (Stocken, 2000).

Opinion shopping is one of the threats to auditor’s independence. The violation of the auditor’s independence led to many crises and collapses, the most famous of which was the fall of one of the largest audit firms in the world, Arthur Anderson, due to its proven involvement in the scandals of the collapse of companies such as Enron (Roszkowska, 2021). This may be due to the lack of ethical behavior of the company's managers, the failure of the effectiveness of the company’s corporate governance, and the external auditor’s
exposure to pressures by the client’s management, which negatively affects the audit quality.

Anecdotal evidence suggests that managers may successfully pressure audit firms to remove nonacquiescent audit partners. As a notable example, Carl Bass, a Houston-based member of Arthur Andersen’s Professional Standards Group, was removed from the Enron audit team under pressure from Enron management because he questioned some of Enron’s accounting practices (Chen et al., 2016). That is, Enron’s management has done internal shopping of auditor’s opinion by pressuring Arthur Anderson to issue a clean report despite the invalidity of the financial statements. Thus, the ambiguous nature of the audit process can lead to collusion between the auditor and client’s management; In addition to the difficulty of obtaining direct evidence of the existence of negotiations between them regarding the audit opinion (Ruiz-Barbadillo et al., 2006).

According to the agency theory and the resulting conflict of interests between management and owners and the existence of a state of information asymmetry, an independent opinion is needed. Thus, the audit report is formulated by an independent and professional person to lend creditability to the financial statements (El-Dyasty and Elamer, 2021). Sometimes, the management exploit the internal information in carrying out opportunistic actions, perhaps the most important of which is earnings management. The auditor may discover this matter, and refuse to issue a clean report, which prompts the management to compromise auditor’s independence either by pressuring him to change his opinion (internal opinion shopping) or dismissing him and searching for another who can issue a clean report (external opinion shopping). So there is a need to an effective mechanism to protect auditor’s independence.

Corporate governance systems have been shown to mitigate agency risks, reducing managerial actions that lessen shareholders' wealth (Masulis et al., 2007). Corporate governance is defined as a system of interrelated mechanisms that has strategic or institutional complementarities to alleviate the conflict of interests between principals and agents; this is dependent on certain combinations,
including board of directors (Desender et al., 2013). High quality corporate governance can protect auditors from dismissal after issuing a going concern audit opinion, and thus maintaining auditor’s independence. So, the researchers expect an effect of board of directors on auditor’s opinion shopping.

High quality corporate governance can protect auditors from dismissal after issuing a going concern audit opinion. Likewise, a more effective and independent board of directors or audit committee can deter the dismissal of auditors who are more conservative and less lenient with clients (Zhou, 2018). The first step for establishing effective corporate governance mechanisms is to establish a board of directors possessing a set of characteristics and a balanced set of skills, experience, independence and knowledge of the company’s matters, so that it can perform its duties effectively. The board of directors is responsible for ensuring that shareholders’ rights are protected, there are high levels of transparency and disclosure, and the interests of the company and shareholders are preserved. The board of directors has many functions and tasks entrusted to it, such as monitoring the actions and behavior of managers in order to prevent any abnormal behavior that may be committed, in addition to developing many strategies related to the company (Aita, 2020, p. 4). Thus the board of directors can limit the auditor’s opinion shopping, both internal and external.

The board of directors shall be composed of an appropriate number of members in a manner that enables it to carry out its functions and duties, including the formation of its committees. The majority of the board members must be non-executives, including at least two independent members with technical and analytical skills, which will bring benefits to the board and the company. In all cases, when selecting independent and non-executive members, it must be taken into account that the member is able to allocate sufficient time and attention to the company, and that there is no conflict with other interests for him. The Board of Directors elects the Chairman of the Board and appoints the chief executive officer (CEO), and it is not preferable to combine the positions of the Chairman and the (CEO). If
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this is not possible, the reasons for this must be disclosed in the annual report and the company's website. In this case, and in accordance with international best practices, an independent chairman is appointed to head the meetings that discuss the performance of the executive management (Egyptian Directors Center, 2016).

The Board of Directors also plays an important role in monitoring the performance of the executive management, ensuring the effectiveness of the internal control system and managing the company's risks. A member of the board of directors must consider himself as a representative of all shareholders, and is committed to do what is in the interests of the company in general and take into account the rights of other stakeholders (Egyptian Directors Center, 2016). The board of directors is one of the effective mechanisms that can reduce agency conflicts that may occur between management and shareholders (El Shawarby, 2018, p.1).

Based on the foregoing, the greater the independence of the board of directors of the client, and its diligence and experience in performing the assigned role, this indicates the strength of the client's governance mechanisms, since the board of directors that has these characteristics will preserve its reputation and avoid legal liability, therefore it has an incentive to prevent opportunistic behavior of management to pressure the auditor to issue a report that the client's financial statements do not deserve, in order to protect the rights of shareholders and other stakeholders. In this case, the opinion shopping decreases, as management will be prevented from compromising the independence of the auditor and trying to influence him when issuing his report.

Previous research has indicated that management shops auditors so that they can contract with more lenient auditor in line with the wishes of management. Thus effective board of directors can restrain opportunistic behavior, and reduce information asymmetry (Yeung and Lento, 2018). Accordingly, activating corporate governance through board of directors can support the auditor's independence and limit the auditor's opinion shopping. So, the researcher expects that
effective board of directors aids in restraining opportunistic behavior of managers like their engagement in auditor’s opinion shopping.

Motivation for this study comes from the lack of research examining the impact of board of director’s characteristics on auditor’s opinion shopping particularly in developing countries. In addition to that auditor’s opinion shopping has received much attention from previous research in developed countries; but it is not discussed in details in developing countries namely, Egypt. The current study seeks to fill the gap in this area by identifying whether Egyptian companies engage in auditor’s opinion shopping in addition to studying the effect of board of director’s characteristics on auditor’s opinion shopping.

The rest of this paper is organized as follows. Section 2 discusses the background literature. Section 3 summarizes the research hypotheses, the sample selection procedures, study variables and empirical models. Section 4 outlines the research results including, descriptive statistics, Pearson correlation matrix, the results of logistic regression analysis, and discussion of results. Section 5 provides a brief conclusion and implications for future research.

2. Literature review

The current research aims to identify whether Egyptian companies engage in auditor’s opinion shopping, and examines the effect of the characteristics of the board of directors as one of corporate governance mechanisms on auditor’s opinion shopping. There is a lack of literature that addressed this effect. So, the researcher presents the most important studies that addressed the factors affecting auditor’s opinion shopping including corporate governance. The most important studies are presented as follows:

2.1. The study of Archambeault and Dezoort (2001)

Title: Auditor Opinion Shopping and the Audit Committee: An Analysis of Suspicious Auditor Switches. This study examines whether audit committee effectiveness characteristics are related to suspicious auditor switching. Suspicious auditor switching is used to
identify companies that engage in opinion shopping. The researchers operationalize suspicious auditor switching by evaluating companies that change auditors after disclosure of a reportable event, after receiving an unclean audit opinion, or after other recent auditor switches. A sample of 60 matched U.S. firms was evaluated along the hypothesized dimensions after controlling for company size, industry, stock exchange, financial health, and management stock ownership. The researchers reached the following results that: suspicious switchers are less likely to have an audit committee, have a smaller percentage of independent directors on the audit committee, have fewer members with experience in accounting, auditing, or finance, hold fewer audit committee meetings, and have smaller audit committees than nonsuspicious switching companies.

2.2. The study of Lennox (2002)

Title: Opinion Shopping and Audit Committees. The study examines the extent to which companies shop opinions and examines the role of audit committees in the case of auditors' dismissal. It conducted an applied study on American companies, and the study sample included 19,273 observations from 1996 to 1998. The researcher reached the following results:

- The companies dismiss the incumbent auditor in the event that he is expected to issue an unclean report, as opinion shopping represents 17% of the reasons for dismissing the auditor.

- Increasing the probability that the audit committee rejects the decision to dismiss the auditor for the purpose of opinion shopping.

2.3. The Study of Ruiz-Barbadillo et al. (2006):

Title: Long-term audit engagements and opinion shopping: Spanish Evidence. The researchers aimed to study the effect of the audit tenure on the company's tendency towards opinion shopping. The researchers focused on internal shopping for auditor's opinion. They conducted an empirical study on a sample of Spanish non-
financial companies listed on the Madrid Stock Exchange from 1991 to 2000 audited by a big audit firm.

The study found that the longer the audit tenure, the less likely the company will move towards shopping the auditor’s opinion shopping.

2.4. The study of (Biedma-López et al., 2010):

Title: Do Independent Audit Committees Prevent Auditor Opinion Shopping? The aim of the study was to investigate the impact of the audit committee's independence on the auditor's dismissal decision and the selection of the next auditor. The researchers conducted an applied study on Spanish companies; the sample included 110 Spanish companies registered in the period from 1998 to 2005.

The researchers reached the following results:

- The independence of the audit committee reduces the probability of changing the auditor after issuing an unclean audit report.
- For companies that change auditors after issuing an unclean report, the independence of the audit committee prevents the appointment of a new non-independent auditor.

2.5. The study of Xie et al. (2010)

Title: Abnormal Audit Fees and Audit Opinion—Further Evidence from China’s Capital Market. It aimed to examine the relationship between opinion shopping and abnormal audit fees. The researchers conducted an applied study on companies registered on the China Stock Exchange, and the study sample included 7028 observations from 2002 to 2008.

The researchers reached the following results:

- When the earning quality of the company decreases, it tends to shop opinion.
- Abnormal audit fees improve the audit opinion of the company in the case of low earning quality.
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- Investors and regulators should pay attention to companies that face a significant increase in accounting profits due to accruals, as well as an unjustified increase in audit fees.

2.6. The study of Chen et al. (2016)

Title: Do Audit Clients Successfully Engage in Opinion Shopping? Partner-Level Evidence. The study aimed to identify whether the Chinese companies tend to shop the opinion of the auditor by influencing the audit company to change the partner (the opinion shopping at the level of the audit partner). The researchers conducted an applied study in the Chinese environment. The sample included 11919 observations from 1998 to 2012.

The researchers reached the following results:
- Chinese companies tend to shop opinion at the audit partner level.
- Opinion shopping is successful at the partner level when the client is economically important to the auditor.
- The quality of profits is lower for firms that tend to shop opinion at the audit partner level.

2.7. The study of Izzat (2016)

Title: Do Egyptian non-financial listed companies engage in auditor opinion shopping? Influence of auditor tenure, abnormal auditor fees, and earnings quality. Its main objectives are as follows:
- Finding out if non-financial firms are involved in the internal shopping of the audit opinion.
- Comparing companies that get involved in opinion shopping with those that do not.
- Studying the relationship between auditor’s opinion shopping and each of the audit tenure, abnormal fees, and the quality of earnings.
The researcher conducted an applied study in Egypt, where the study sample included 141 non-financial companies listed on the Egyptian Stock Exchange during the period from 2010 to 2014, and thus the sample included 705 observations.

Among the most important findings of the study are the following:

- High percentage of non-financial companies are involved in internal opinion shopping.

- When comparing the companies engaged in internal opinion shopping with those that were not engaged, it is found that they are characterized by long audit tenure, high abnormal fees, low earning quality, and joint auditing, issuing a clean report for them in the previous year, and auditing by non-big 4 Audit firms.

- The likelihood of non-financial companies being involved in internal opinion shopping increases in the case of long audit tenure, high abnormal audit fees, and low earning quality.

2.8. The study of Budisantoso et al. (2017)

Title: Audit Opinion Accuracy, Corporate Governance and Downward Auditor Switching: A Study of Association of Southeast Asian Nations Economics Community. The objective of this research is to examine moderating effect of audit opinion accuracy on relationship between corporate governance and downward auditor switching in five countries of Association of Southeast Asian Nations region. One of factors that affect auditor switching, related to decreasing of audit quality, is opinion shopping. Auditor switching is driven by the opinion given by the auditor in the case of opinion shopping. Opinion shopping is more likely to happen when there is decreasing in audit quality, such as downward auditor switching. The sample of this research is manufacture companies listed in stock exchange of Indonesia, Malaysia, Singapore, Thailand and Philippine. Using logistic regression, results indicate that:

- Independent and financial expert members of audit committee have negative effect on auditor’s opinion shopping.
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- The independent committee members increases audit quality by preventing external opinion shopping.

2.9. The study of Mobasser et al. (2021)

Title: Corporate Governance and Audit Opinion Shopping: Evidence from Iran. The purpose of this study is to investigate the relationship between the elements of corporate governance including institutional ownership, ownership concentration, board size, and board independence and the audit opinion shopping in companies accepted in Tehran Stock Exchange (TSE). To achieve this goal, 120 companies listed on the Tehran Stock Exchange were selected from 2001 to 2016 and were tested using logistic regression. The results showed that:

- There is a significant positive relationship between the ownership concentration and the audit opinion shopping.
- There is no significant relationship between the other independent variables and the audit opinion shopping.

2.10. The study of Osma et al. (2022)

Title: Opinion-shopping: Partner versus firm-level evidence. The main objective of this study is to identify the extent of opinion shopping at partner-level and at audit firm-level in Spain. The researchers conducted an applied study on the listed Spanish non-financial companies. The study sample included 2051 observations from 1995 to 2014.

The study reached the following results:

- There is a successful shopping for the opinion of the auditor at the level of the audit firm.
- The likelihood of issuing a clean report after changing the audit partner is less if his colleague issued an unclean report in the prior year.
- Companies first shop the audit opinion at partner-level, and in case of failing to obtain a clean report, it tends to shop the
opinion at the level of the audit firm, and in the case of failure of the attempt, and it tends to change the audit firm again in order to obtain the desired report.

- Voluntary change of the audit firm leads to an opinion shopping.

**Commenting on Literature Review**

After reviewing the results of literature, the researcher can show the following:

1) Most of the previous studies related to opinion shopping have been applied on developed countries such as Spain and China, some of which aims to identify the extent of the practice of opinion shopping, and others have studied the impact of some factors on auditor’s opinion shopping.

2) The absence of previous research examining the effect of the characteristics of the board of directors or the ownership structure on both types of auditor's opinion shopping, to the best of the researcher knowledge. The studies found by the researcher are the studies of Mobasser et al. (2021) and Budisantoso et al. (2017). But they focused on the external shopping of auditor’s opinion.

3) The scarcity of Arab studies, especially Egyptian one that addressed opinion shopping using actual data of financial statements. The study of Izzat (2016) recommends, in future research, the importance of studying the impact of factors related to corporate governance on opinion shopping, and studying this effect on external opinion shopping in the Egyptian environment.

Based on the foregoing and despite the significant contribution made by previous studies regarding auditor's opinion shopping; the research gap still exists. So, this study adds to the rare but growing literature of auditor’s opinion shopping by examining the impact of the characteristics of board of directors as an important corporate governance mechanism on auditor’s opinion shopping both internal
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and external using Lennox (2000) methodology in a developing country, namely Egypt.

Therefore the researcher aims to achieve the following objectives:

1) Determining whether Egyptian companies engage in auditor’s opinion shopping.

2) Studying the impact of the characteristics of the board of directors - including the size, the independence, the presence of women, the role duality of the chairman, and the experience on auditor’s opinion shopping, both internal and external.

3. Methodology

3.1. Research Hypotheses

So, to achieve the objectives of the study, the researcher tests the validity of the following hypotheses:

- \( H_1 \): Egyptian companies successfully engage in auditor’s opinion shopping.

- \( H_2 \): There is a significant effect of the characteristics of the board of directors on auditor's opinion shopping. The following sub-hypotheses branch out from it:
  
  - \( H_{2.1} \): There is a significant effect of the size of the board of directors on auditor's opinion shopping.
  
  - \( H_{2.2} \): There is a significant effect of the independence of the board of directors on auditor's opinion shopping.
  
  - \( H_{2.3} \): There is a significant effect of role duality of the chairman of the board of directors on auditor's opinion shopping.
  
  - \( H_{2.4} \): There is a significant effect of the presence of women in the board of directors on auditor's opinion shopping.
  
  - \( H_{2.5} \): There is a significant effect of the experience of the Board of Directors on auditor's opinion shopping.
3.2. sample selection and data sources

The study population is represented by all non-financial Egyptian-listed companies during the period 2017–2021. So, the study population is represented by 179 companies, (i.e. 895 observations). We also excluded the public sector companies that are audited by the accountability state authority only without the private auditing offices. In addition to that we excluded the companies that lacked the data necessary to measure the study variables and test the hypotheses, as well as the companies that disclosed the financial statements in a currency other than the Egyptian pound. Following the previous procedures, the final sample of the current study consisted of 91 companies, (i.e. 455 observations), and 6 observations were deleted because they contained abnormal and extremist data that could affect the results’ validity. Therefore, the final sample consist of 449 observations.

The research variables were hand-collected from the sampled companies’ annual reports, their websites and capital markets’ websites. Specifically, data were obtained from the companies’ websites and a financial website (i.e. Mubasher). Only official pdf versions of financial statements were considered.

3.3. Variables

Based on the aforementioned statistical hypotheses of this research, it becomes crucial to define the study variables and formulate the study models, as follows:

3.3.1. The independent variables of the study

The independent variables of interest in the current study are the characteristics of the board of directors. Therefore, the researcher will review the tools for measuring the independent variables of the study according to the following presentation:

The researcher can summarize the most important variables of the characteristics of the board of directors through table (1):
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Table 1: Characteristics of the Board of Directors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Symbol</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board size</td>
<td>BDSIZE$_n$</td>
<td>Total number of board members divided by the planned size of board size $^{(1)}$.</td>
</tr>
<tr>
<td>Board independence</td>
<td>BDIND$_n$</td>
<td>Percentage of independent board members out of total board members.</td>
</tr>
<tr>
<td>Duality of duties of the chairman of the board</td>
<td>DUAL$_n$</td>
<td>A dummy variable that takes the value of 1 in the event that the chairman of the board is the CEO of the company and the value of 0 otherwise.</td>
</tr>
<tr>
<td>The presence of women on the board</td>
<td>BDWOMEN$_n$</td>
<td>A dummy variable that takes the value 1 if there are women on the board and 0 otherwise.</td>
</tr>
<tr>
<td>Board experience</td>
<td>BDEXP$_n$</td>
<td>The percentage of members with experience in the board of directors.</td>
</tr>
</tbody>
</table>

3.3.2. The dependent variable of the study

The dependent variable of the study is auditor’s opinion shopping. Prior literature has largely investigated whether clients shop for clean audit opinions on financial statements by changing audit firms, and provided mixed evidence on this issue (e.g., Krishnan and Stephens, 1995; Lu, 2006). Instead of comparing observed audit opinions in pre- and post-switching periods, Lennox (2000) argue that non-switching companies could be involved in opinion shopping, as well. That is, it is definitely possible that non-switching companies would rather choose to stay with incumbent auditors because new auditors are more likely to issue a modified opinion. So, the researcher uses Lennox $^{(1)}$ The researcher determined the number of planned members to be five, in light of what was stated in the Egyptian code of corporate governance issued by the Egyptian Directors Center in 2011.
(2000) methodology to predict opinion shopping variable. Lennox (2000) methodology is widely applied in recent opinion shopping studies (Chen et al., 2016; Newton et al., 2016; Lee, 2016; Chung et al., 2019; Chung et al., 2021; Chung and Kim, 2022).

Here, OS is defined as when managers intentionally change (retain) their incumbent auditors in anticipation of a lower (higher) probability of receiving a modified audit opinion from the successor auditors. In other words, If company i engages in opinion-shopping, it uses the switch decision to minimize the probability of receiving a modified report (Lennox, 2000, P. 325).

To estimate the probability of receiving a modified audit opinion with switching versus non-switching decisions, the researcher uses the following probit model:

\[
M_{i,t} = \gamma_0 + \gamma_1 M_{i,t-1} + \gamma_2 X_{i,t} + \gamma_3 S_{i,t} + \gamma_4 S_{i,t} \times M_{i,t-1} + \gamma_5 S_{i,t} \times X_{i,t-1} + \varepsilon
\]

(1)

Whereas:

- \(M_{i,t}\) indicates the type of auditor's report, which is a dummy variable that takes the value of 1 if there is a modified report (i.e. qualified, adverse and disclaimer opinions) for company (i) in year (t), and the value of 0 in the case of unqualified report.

- \(M_{i,t-1}\) indicates the previous year's report type, which is a dummy variable that takes the value 1 if there is a modified report (i.e. qualified opinion, adverse opinion and disclaimer) for company (i) in the year (t-1), and the value 0 in the case of unqualified report. As previous studies reveal strong persistence in audit reporting, so it is included in the model (Monroe and Teh, 1993; Krishnan et al., 1996).

- \(S_{i,t}\) represents the switch decision, which is a dummy variable that takes the value 1 in the case of changing the auditor and appointing a new auditor to company (i) in year t; and 0 if the auditor is retained;

- \(X_{i,t}\) It includes explanatory variables identified by prior literature (Lennox 2000, 2002; Chan et al., 2012), which are related to the modified opinion of the external auditor, such as: profitability (ROA\(_{it}\)) , liquidity (CR\(_{it}\)), company leverage (LEV\(_{it}\)), company size (SIZE\(_{it}\)), and growth (GROWTH\(_{it}\)), which are measured as follows:
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Where:

- **Profitability** (ROA\(_i\)): equals net income divided by total assets.
- **Liquidity** (CR\(_i\)): equals to current assets divided by current liabilities.
- **Company leverage** (LEV\(_i\)): equals to total liabilities divided by total assets.
- **Company size** (SIZE\(_i\)): measured using the natural logarithm of the company’s total assets.
- **Growth of the company** (GROWTH\(_i\)): represents the annual change in total assets (the annual percentage change in total assets).

**Interaction terms** (S\(_{i,t}\) * M\(_{i,t-1}\) and \(\gamma_5\) S\(_{i,t}\) * X\(_{i,t-1}\)) between the explanatory variables and the switch decision variable (S\(_i\)) are included to test whether the coefficients in the reporting model differ across incumbent and new auditors.

The researcher derives the OS variable from the estimates in model (1), as using the coefficients from the audit opinion model (1), two probabilities are calculated:

- **The first probability**: is the probability that company (i) will obtain a modified report if the incumbent auditor is retained [P\(^r\) (M\(_{i,t}^0 = 1\)] and here S= 0.
- **The second probability**: is the probability that company (i) obtain a modified report if a new auditor is appointed [P\(^r\) (M\(_{1,t}^1 = 1\)] and here S=1.

The difference in the probabilities of receiving a modified audit opinion between the successor and incumbent auditors [i.e., P\(^r\) (M\(_{l,t}^0 = 1\) – P\(^r\) (M\(_{1,t}^1 = 1\)] is then the OS variable. If an incumbent auditor issues a modified opinion with a higher probability than a new auditor (i.e., [P\(^r\) (M\(_{l,t}^0 = 1\) – P\(^r\) (M\(_{1,t}^1 = 1\)] > 0) and a company dismisses its auditor, then the company may engage in opinion shopping. Likewise, if a new auditor issues a modified opinion with a higher probability than an incumbent auditor (i.e., [P\(^r\) (M\(_{l,t}^0 = 1\) – P\(^r\) (M\(_{1,t}^1 = 1\)] \leq 0) and a company retains its
auditor, then the company may be an opinion shopper. To summarize, if companies decide to retain or switch to an auditor who is less likely to issue a modified opinion, this paper identifies those companies as possible opinion shoppers (OS). As the possibility of opinion shopping depends on the existence of a difference in the probability of issuing a modified report between the incumbent auditor and the new one.

Thus, the operation of the previous model aims to predict the difference between the probabilities of modified report and to test whether companies depend in making the switch decision on a major question represented in: Does the incumbent auditor or the new auditor increase the likelihood of issuing a modified report?. As scope for opinion shopping depends on whether reporting differences exist between retained and newly appointed auditors. Reporting differences make opinion shopping possible since a company can condition its dismissal decision on whether a new auditor or its incumbent auditor would more likely give a favorable audit opinion. The methodology employed tests whether scope exists for opinion shopping, and whether companies exploit this scope to avoid unfavorable audit opinions.

Then the researcher estimates model (2) to examine the association between a company’s auditor switch decision and the opinion shopping variable (Lennox, 2000, 2002). The difference between the probabilities of issuing a modified report for the incumbent auditor and the new auditor should be studied, by putting it in the auditor switch model. If the coefficient of \( P^r(M_{it}^0 = 1) - P^r(M_{it}^1 = 1) \) becomes positive in the auditor switch model, it suggests that firms successfully engage in opinion shopping (Lennox, 2002). The auditor switch model is as follows:

\[
S_{it} = \theta_0 + \theta_1 [P^r(M_{it}^0 = 1) - P^r(M_{it}^1 = 1)] + \theta_2 Z_{it} + u_{it}
\] (2)

Where:
- \([P^r(M_{it}^0 = 1) - P^r(M_{it}^1 = 1)]\) the auditor’s opinion shopping variable resulted from the operation of Model No. (1), which takes the effect of differences in the report between the
incumbent auditor and the new one on the decision to switch the auditor;

- \( Z_{4,t} \) = control variables for the model, which previous studies have shown to be associated with switching auditor such as rapid growth and rapid decline, which are measured as follows:

**Where:**

- **Rapid Growth (GROW\(_i\))**: is a dummy variable that takes the value of 1 if company \( i \) represents one of the top 10% of companies in terms of growth, and 0 otherwise.

- **Rapid Decline (DEC\(_i\))**: It is a dummy variable that takes the value of 1 if company \( i \) represents one of the bottom 10% of companies in terms of growth, and 0 otherwise.

What should be noted with regard to Model No. 2 is that the relationship between company growth (GROWTH\(_i\)) and auditor switch is expected to be a non-monotonic relationship because companies that grow or decline rapidly increase the probability of changing auditor compared to companies that grow at a constant rate. So, that model will use the non-monotonic relationship by using dummy variables of rapid growth and rapid decline. Where the sample is arranged in terms of growth, (GROW\(_i\)) equal 1 for the top 10% of companies in terms of growth, (DEC\(_i\)) equal 1 for the lowest 10% of companies in terms of growth. Running this model verifies that companies are actually involved in the auditor opinion shopping process. If \( \theta_1 \) is positive, then it is evidence of the prevalence of the auditor opinion shopping practice in the current sample (Lennox, 2002, P. 18). In other words if \( \theta_1 \) is positive, it means that Egyptian companies successfully engage in auditor’s opinion shopping.

3.3.3. **The control variables of the study**

Within the scope of the current study, the researcher can clarify the variables controlling the relationship through the following table (2):
Table 2: Control Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Symbol</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit firm size</td>
<td>AUDSIZE&lt;sub&gt;it&lt;/sub&gt;</td>
<td>A dummy variable that takes the value of 1 if the audit office belongs to one of the big 4 auditing firms, and 0 otherwise.</td>
</tr>
<tr>
<td>Profitability</td>
<td>ROA&lt;sub&gt;it&lt;/sub&gt;</td>
<td>Equals net income of company &lt;i&gt;i&lt;/i&gt; in year &lt;i&gt;t&lt;/i&gt; divided by its total assets.</td>
</tr>
<tr>
<td>Liquidity</td>
<td>CR&lt;sub&gt;it&lt;/sub&gt;</td>
<td>Equals the current assets of company &lt;i&gt;i&lt;/i&gt; in year &lt;i&gt;t&lt;/i&gt; divided by the current liabilities.</td>
</tr>
<tr>
<td>Company leverage</td>
<td>LEV&lt;sub&gt;it&lt;/sub&gt;</td>
<td>Equals the total liabilities of company &lt;i&gt;i&lt;/i&gt; in year &lt;i&gt;t&lt;/i&gt; divided by the total assets.</td>
</tr>
<tr>
<td>Firm size</td>
<td>SIZE&lt;sub&gt;it&lt;/sub&gt;</td>
<td>It is measured in natural logarithm of the total assets of company &lt;i&gt;i&lt;/i&gt; in year &lt;i&gt;t&lt;/i&gt;.</td>
</tr>
<tr>
<td>Loss</td>
<td>LOSS&lt;sub&gt;it&lt;/sub&gt;</td>
<td>A dummy variable that takes the value of 1 if company &lt;i&gt;i&lt;/i&gt; had a loss in year &lt;i&gt;t&lt;/i&gt;, and the value of zero otherwise.</td>
</tr>
</tbody>
</table>

3.4. Research models

In the context of analyzing the research variables and formulating statistical hypotheses, the researcher can formulate the study models through the following presentation:

3.4.1. The model for testing the second statistical hypothesis of the study:

The second hypothesis of the study predicts the impact of different characteristics of the board of directors on limiting auditor’s opinion shopping. Then the researcher can formulate the statistical model to test the fourth hypothesis as follows:

\[
OS_{it} = \beta_0 + \beta_1 BDSIZE_{it} + \beta_2 BDIND_{it} + \beta_3 DUAL_{it} + \beta_4 BDWOMEN_{it} + \beta_5 BDEXP_{it} + \beta_6 AUDSIZE_{it} + \beta_7 ROA_{it} + \beta_8 LOSS_{it} + \beta_9 LEV_{it} + \beta_{10} CR_{it} + \beta_{11} FSIZE_{it} + \varepsilon_{it} \tag{3}
\]

Since all the variables have been shown above. Within the framework of the division of the third statistical hypothesis of the study, the researcher can re-divide the fourth statistical hypothesis test
model for the study to avoid the problem of double linearity (if any). This is as follows:

- **(H2-1) Model:**
  \[ OS_{i,t} = \beta_0 + \beta_1 \text{BDSIZE}_{it} + \beta_2 \text{AUDSIZE}_{it} + \beta_3 \text{ROA}_{it} + \beta_4 \text{LOSS}_{it} + \beta_5 \text{LEV}_{it} + \beta_6 \text{CR}_{it} + \beta_7 \text{FSIZE}_{it} + \varepsilon_{i,t} \]  \hspace{1cm} (3-1)

- **(H2-2) Model:**
  \[ OS_{i,t} = \beta_0 + \beta_1 \text{BDIND}_{it} + \beta_2 \text{AUDSIZE}_{it} + \beta_3 \text{ROA}_{it} + \beta_4 \text{LOSS}_{it} + \beta_5 \text{LEV}_{it} + \beta_6 \text{CR}_{it} + \beta_7 \text{FSIZE}_{it} + \varepsilon_{i,t} \]  \hspace{1cm} (3-2)

- **(H2-3) Model:**
  \[ OS_{i,t} = \beta_0 + \beta_1 \text{DUAL}_{it} + \beta_2 \text{AUDSIZE}_{it} + \beta_3 \text{ROA}_{it} + \beta_4 \text{LOSS}_{it} + \beta_5 \text{LEV}_{it} + \beta_6 \text{CR}_{it} + \beta_7 \text{FSIZE}_{it} + \varepsilon_{i,t} \]  \hspace{1cm} (3-3)

- **(H2-4) Model:**
  \[ OS_{i,t} = \beta_0 + \beta_1 \text{BDWOMEN}_{it} + \beta_2 \text{AUDSIZE}_{it} + \beta_3 \text{ROA}_{it} + \beta_4 \text{LOSS}_{it} + \beta_5 \text{LEV}_{it} + \beta_6 \text{CR}_{it} + \beta_7 \text{FSIZE}_{it} + \varepsilon_{i,t} \]  \hspace{1cm} (3-4)

- **(H2-5) Model:**
  \[ OS_{i,t} = \beta_0 + \beta_1 \text{BDEXP}_{it} + \beta_2 \text{AUDSIZE}_{it} + \beta_3 \text{ROA}_{it} + \beta_4 \text{LOSS}_{it} + \beta_5 \text{LEV}_{it} + \beta_6 \text{CR}_{it} + \beta_7 \text{FSIZE}_{it} + \varepsilon_{i,t} \]  \hspace{1cm} (3-5)

### 3.5. Data Collection Sources

To collect the data necessary for the study variables, the researcher relied on a group of websites on which the financial reports of companies listed on the Egyptian Stock Exchange are available. These sites are:

- The Egyptian Stock Exchange website: www.egx.com.eg
- Mubasher information site: http://www.mubasher.info/EGX/listed-companies
- Some websites of companies listed on the Egyptian Stock Exchange.

Through these sources, the researcher is able to obtain the following data:
The financial statements and the external auditor's report for the study sample.

The annual report of the board of directors attached to the financial statements, prepared in accordance with the provisions of Article 40 of the Listing Rules.

Report of the disclosure form on the structure of shareholders.

The annual governance report, prepared by the company's management annually, sent to the Financial Regulatory Authority, and attached with an independent assurance report prepared by the auditor to verify the validity of information in the governance report.

3.6. The Statistical Methods Used

For the purposes of data analysis, the researcher used the statistical program (SPSS), the twenty-fifth version, where a number of statistical methods were relied on which are descriptive statistics, Pearson's Correlation Coefficient, Probit Regression analysis, and Logistic regression analysis, based on the value of the coefficient of determination ($R^2$) to measure the statistical quality of the model, and to determine the effect of independent variables on the dependent variable. These methods can be explained in some detail as follows:

3.6.1.1. Descriptive statistical methods:

Where the arithmetic mean and standard deviation were relied upon, to measure the extent of dispersion and difference between the sample units regarding the study variables.

3.6.1.2. Inferential statistical methods:

In testing the study hypotheses, the researcher relied on a set of statistical methods, which are:

- Using correlation coefficients: to identify the extent to which there are relationships between the variables subject to the test.

- Using regression coefficients: in order to identify the extent of the effect between the variables subject to the test.

After the researcher presented the research population and sample, the measurement tools, the research models, the sources of
collecting data, and the statistical methods used in analyzing the data, she proceeds to extract the results from the program and present them in the next section.

4. results

4.1. Results of the Descriptive Analysis

Descriptive statistics refer to the nature of the study sample and the shape of the distribution curve for each variable separately. Table (3) shows the results of the descriptive analysis of the study variables as follows:

**Table 3: Descriptive Statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS&lt;sub&gt;i&lt;/sub&gt;</td>
<td>0.000</td>
<td>1.000</td>
<td>0.236</td>
<td>0.425</td>
</tr>
<tr>
<td>BDSIZE&lt;sub&gt;i&lt;/sub&gt;</td>
<td>0.600</td>
<td>3.400</td>
<td>1.632</td>
<td>0.529</td>
</tr>
<tr>
<td>BDIND&lt;sub&gt;i&lt;/sub&gt;</td>
<td>0.000</td>
<td>0.770</td>
<td>0.162</td>
<td>0.165</td>
</tr>
<tr>
<td>DUAL&lt;sub&gt;i&lt;/sub&gt;</td>
<td>0.000</td>
<td>1.000</td>
<td>0.503</td>
<td>0.501</td>
</tr>
<tr>
<td>BDWOMEN&lt;sub&gt;i&lt;/sub&gt;</td>
<td>0.000</td>
<td>1.000</td>
<td>0.588</td>
<td>0.493</td>
</tr>
<tr>
<td>BDEXP&lt;sub&gt;i&lt;/sub&gt;</td>
<td>0.000</td>
<td>0.833</td>
<td>0.189</td>
<td>0.177</td>
</tr>
<tr>
<td>AUDSIZE&lt;sub&gt;i&lt;/sub&gt;</td>
<td>0.000</td>
<td>1.000</td>
<td>0.272</td>
<td>0.445</td>
</tr>
<tr>
<td>ROA&lt;sub&gt;i&lt;/sub&gt;</td>
<td>-1.679</td>
<td>0.694</td>
<td>0.044</td>
<td>0.142</td>
</tr>
<tr>
<td>LOSS&lt;sub&gt;i&lt;/sub&gt;</td>
<td>0.000</td>
<td>1.000</td>
<td>0.223</td>
<td>0.417</td>
</tr>
<tr>
<td>LEV&lt;sub&gt;i&lt;/sub&gt;</td>
<td>0.003</td>
<td>3.177</td>
<td>0.455</td>
<td>0.276</td>
</tr>
<tr>
<td>CR&lt;sub&gt;i&lt;/sub&gt;</td>
<td>0.109</td>
<td>678.363</td>
<td>4.853</td>
<td>32.504</td>
</tr>
<tr>
<td>FSIZE&lt;sub&gt;i&lt;/sub&gt;</td>
<td>7.205</td>
<td>10.831</td>
<td>8.929</td>
<td>0.748</td>
</tr>
</tbody>
</table>

Based on the previous presentation of the descriptive statistics table (3), the researcher can clarify some important observations as follows:

First, the arithmetic mean of the OS variable related to the auditor’s opinion shopping is 23.6%, which indicates that 23.6% of the observations included in the sample shop the auditor’s opinion, which is equivalent to 106 observations out of a total of 449, which indicates that there is a high percentage of companies does this practice in the Egyptian stock market.
Secondly, with regard to the characteristics of the board of directors, the researcher finds that the arithmetic mean of the size of the board of directors is 1.632, which is a value that mediates the minimum and maximum limits of the sample, which indicates the moderation of the availability of the characteristic in the study sample. As for the independence of the board of directors and its financial experience, it is clear that the value of the arithmetic mean is low for them, reaching 16.2% and 18.9%, respectively, which is a fairly low percentage in the study sample, and then the low percentage of availability of the characteristic in the sample. While it is noted that the other characteristics of the board of directors are high, which are the dual role of the chairman of the board of directors of the organization and the presence of women in the board of directors, where the arithmetic mean for them is 50.3% and 58.8%, respectively.

4.2. Pearson Correlation Matrix

Correlation coefficients refer to the nature of the correlation between the independent variables of the study and the dependent variable. They also indicate the direction of the relationship, whether it is direct or inverse. That is a prelude to the form of the relationship between the variables until the final result is reached through the results of the regression analysis. In addition, this matrix contributes in forming an initial opinion on the problem of linear duplication, and the results of the statistical analysis are shown in Table (4).

It is clear from the results shown in that table that there is an inverse relationship between the characteristics of the board of directors and the auditor’s opinion shopping in general, with the exception of the presence of women in the board of directors, which indicates that the high level of the characteristics of the board of directors leads to a low level of the auditor’s opinion shopping. It is worth noting that all the values of the correlation coefficients between the independent variables are less than 0.8, which indicates that there is no linear duplication between the variables.
### Table 4: Pearson Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>OSit</th>
<th>BDSIZEit</th>
<th>%BDINDit</th>
<th>DUALn</th>
<th>BDWOMENn</th>
<th>BDEXPN</th>
<th>AUDSIZEin</th>
<th>ROAn</th>
<th>LOSSn</th>
<th>LEVn</th>
<th>CRn</th>
<th>FSIZEn</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSit</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDSIZEit</td>
<td>-.052</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%BDINDit</td>
<td>-.074</td>
<td>-.025</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DUALn</td>
<td>-.046</td>
<td>.045</td>
<td>-.194**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDWOMENn</td>
<td>.007</td>
<td>.204**</td>
<td>.047</td>
<td>-.171**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDEXPN</td>
<td>-.038</td>
<td>.033</td>
<td>.152**</td>
<td>.022</td>
<td>.047</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUDSIZEin</td>
<td>-.163**</td>
<td>.099</td>
<td>.316**</td>
<td>.184**</td>
<td>-.048</td>
<td>.016</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROAn</td>
<td>-.173**</td>
<td>.176**</td>
<td>-.154**</td>
<td>.110†</td>
<td>-.010</td>
<td>-.017</td>
<td>.031</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOSSn</td>
<td>.232**</td>
<td>-.158**</td>
<td>.038</td>
<td>-.057</td>
<td>.002</td>
<td>-.021</td>
<td>-.008</td>
<td>-.473**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEVn</td>
<td>.112†</td>
<td>-.089</td>
<td>.107^</td>
<td>-.095†</td>
<td>-.023</td>
<td>-.014</td>
<td>.230**</td>
<td>-.471**</td>
<td>.077</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRn</td>
<td>.064</td>
<td>-.027</td>
<td>.038</td>
<td>.049</td>
<td>.030</td>
<td>-.005</td>
<td>.044</td>
<td>-.031</td>
<td>.121†</td>
<td>-.041</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FSIZEn</td>
<td>.010</td>
<td>.355**</td>
<td>.130**</td>
<td>-.169**</td>
<td>.038</td>
<td>-.033</td>
<td>.348**</td>
<td>.183**</td>
<td>-.223**</td>
<td>-.309**</td>
<td>-.027</td>
<td>1</td>
</tr>
</tbody>
</table>
4.3. Results of statistical hypothesis tests:

In this part of the study, the researcher aims to analyze the relationship between the auditor’s opinion shopping and the independent variables related to the characteristics of the board of directors. However, before the researcher proceeds with the analysis, a preliminary analysis of the auditor's opinion shopping model must be conducted to verify the availability of the auditor's opinion shopping practice in the study sample, as follows:

4.3.1. Running the auditor’s opinion shopping model (testing the first statistical hypothesis):

In this part of the study, the researcher aims to run the auditor's opinion shopping model previously presented (Model (1)) in order to extract the probability of the auditor’s opinion shopping for each observation separately by obtaining two probabilities. The first probability is the probability of issuing a modified report by the incumbent auditor if he is retained. The second probability is the probability of issuing a modified report by the new auditor if the incumbent auditor is changed. As the operation of this model is based on the probit analysis that gives an expected probability for each observation. If the first probability is greater than the second one and the difference is positive, and a company dismisses its auditor, then the company may engage in opinion shopping. Likewise, if a new auditor issues a modified opinion with a higher probability than an incumbent auditor and a company retains its auditor, then the company may be an opinion shopper. The results of the analysis are shown in Table (5).

Then this model becomes the one that provides the necessary data to extract the decision base on which it is judged whether there is shopping for the auditor’s opinion or not, and therefore the results of this model are limited to verifying its quality and conformity to achieve optimal solutions, provided that the probability values of auditor’s opinion shopping are extracted and projected on hypotheses tests models.
The Impact of the Characteristics of the Board of Directors on Auditor’s Opinion Shopping:

Table 5: The Results of Probit Analysis of Model (1)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>Z</th>
<th>Sig.</th>
<th>Predicted sign</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>$M_{it-1}$</td>
<td>2.505</td>
<td>0.220</td>
<td>11.404</td>
<td>0.000</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>$S_{it}$</td>
<td>4.236</td>
<td>2.811</td>
<td>1.507</td>
<td>0.132</td>
<td>-</td>
<td>NS</td>
</tr>
<tr>
<td>$ROA_{it}$</td>
<td>-1.436</td>
<td>0.793</td>
<td>-1.812</td>
<td>0.070</td>
<td>-</td>
<td>NS</td>
</tr>
<tr>
<td>$CR_{it}$</td>
<td>0.004</td>
<td>0.003</td>
<td>1.328</td>
<td>0.184</td>
<td>-</td>
<td>NS</td>
</tr>
<tr>
<td>$LEV_{it}$</td>
<td>-0.288</td>
<td>0.478</td>
<td>-0.602</td>
<td>0.547</td>
<td>+</td>
<td>NS</td>
</tr>
<tr>
<td>$FSIZE_{it}$</td>
<td>0.262</td>
<td>0.153</td>
<td>1.716</td>
<td>0.086</td>
<td>-</td>
<td>NS</td>
</tr>
<tr>
<td>$GROWTH_{it}$</td>
<td>0.053</td>
<td>0.520</td>
<td>0.101</td>
<td>0.919</td>
<td>-</td>
<td>NS</td>
</tr>
<tr>
<td>$S_{it} \times M_{it-1}$</td>
<td>-1.077</td>
<td>0.414</td>
<td>-2.600</td>
<td>0.009</td>
<td>None</td>
<td>-</td>
</tr>
<tr>
<td>$S_{it} \times ROA_{it}$</td>
<td>-0.705</td>
<td>2.476</td>
<td>-0.285</td>
<td>0.776</td>
<td>None</td>
<td>NS</td>
</tr>
<tr>
<td>$S_{it} \times CR_{it}$</td>
<td>0.029</td>
<td>0.034</td>
<td>0.840</td>
<td>0.401</td>
<td>None</td>
<td>NS</td>
</tr>
<tr>
<td>$S_{it} \times LEV_{it}$</td>
<td>1.850</td>
<td>1.107</td>
<td>1.671</td>
<td>0.095</td>
<td>None</td>
<td>NS</td>
</tr>
<tr>
<td>$S_{it} \times FSIZE_{it}$</td>
<td>-0.514</td>
<td>0.343</td>
<td>-1.497</td>
<td>0.134</td>
<td>None</td>
<td>NS</td>
</tr>
<tr>
<td>$S_{it} \times GROWTH_{it}$</td>
<td>0.148</td>
<td>0.990</td>
<td>0.150</td>
<td>0.881</td>
<td>None</td>
<td>NS</td>
</tr>
<tr>
<td>Intercept</td>
<td>-3.715</td>
<td>1.303</td>
<td>-2.851</td>
<td>0.004</td>
<td>None</td>
<td>-</td>
</tr>
</tbody>
</table>

Optimal Solution Found: Yes

N: 449
Chi-Square: 425.793
Sig.: 0.615

It is clear from the results of this table that through the model the optimal solutions were reached for the expected probabilities, where it was found that (optimal solution found = Yes) and then this model is able to predict the probability of shopping the opinion of the external auditor successfully. That is, the model is identical.

It is also noted the significance of the variable related to the existence of a modified audit report for the prior year ($M_{it-1}$), and then
it is found that it has a significant impact on the probability of issuing a modified report for the current year. The significant negative coefficient on \( S_{it} * M_{it-1} \) indicates that new auditors are less likely to issue modified opinions than incumbent auditors when prior audit opinion are modified. This reporting difference between incumbent and new auditors may facilitate opinion shopping.

With regard to the results of the Chi-Square test for good conformity, the quality of the model's conformity is shown, as the quality of conformity refers to the differences between the observed values included in the model and the expected values extracted from it, and the insignificance of the Chi-Square values indicates that the differences between the observed and expected values are very small and have no statistical significance. Then it becomes logical that the less the differences between the actual values and the expected values, the greater the quality of the model, and therefore it is clear from the previous table that the values of Chi-square are not significant, as the significance was 0.615, which is greater than 0.05.

Finally, the results of the Probit analysis of the previous model showed a set of expected values for the probability of changing the auditor in the presence of the modified report, and they were compared to the actual values, and on the basis of this, a dummy variable was formulated to express it in a statistical hypothesis testing model that takes the value 1 in the case of a high probability of changing the auditor, and then there is shopping for the opinion of the auditor Otherwise, the value is zero.

Based on the aforementioned results, it has become very important to run Model No. (2) to ensure the availability of the practice of auditor’s opinion shopping in the study sample, as Model No. (2) seeks to study the impact of the difference between modified opinion probabilities on the auditor switch decisions. The results of the statistical analysis using logistic regression resulted in the results shown in Table (6) as follow:
The Impact of The Characteristics of the Board of Directors on Auditor’s Opinion Shopping:

Table 6: Results of the Logistic Regression Analysis of Model (2)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>B</th>
<th>Wald</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>Predicted sign</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>( P^{\geq R}(M^0_{it} = 1) - P^{\geq R}(M^1_{it} = 1) )</td>
<td>0.583</td>
<td>4.508</td>
<td>0.034</td>
<td>1.791</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>DECit</td>
<td>0.068</td>
<td>0.028</td>
<td>0.867</td>
<td>1.070</td>
<td>+</td>
<td>NS</td>
</tr>
<tr>
<td>GROWit</td>
<td>-0.387</td>
<td>0.708</td>
<td>0.400</td>
<td>0.679</td>
<td>+</td>
<td>NS</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.689</td>
<td>110.981</td>
<td>0.000</td>
<td>0.185</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Nagelkerke R Square</td>
<td>20.00%</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>449</td>
<td></td>
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</tbody>
</table>

The previous results prove that the difference between modified opinion probabilities extracted from model (1) explains 20% of the expected switch of the incumbent auditor based on the results of Nagelkerke R Square, and then it turns out that 20% of the cases of changing the incumbent auditor are due to the auditor’s opinion shopping. It is clear from the results shown in the previous table the significance of the variable related to the probability of auditor’s opinion shopping in addition to the fact that it carries a positive sign, which indicates that firms tend to switch (retain) auditors when the likelihood of receiving a modified audit opinion from a successor auditor is lower (higher) than from the incumbent auditor. Thus, the positive sign suggests that firms successfully engage in opinion shopping. So, the researcher accept the first statistical hypothesis that:

\[ H_1: \text{Egyptian companies successfully engage in auditor’s opinion shopping.} \]

Based on the results extracted from Model No. (1) and the evidence of the quality of the expected values extracted to measure the auditor’s opinion shopping, and based on the results extracted from Model No. (2) and the evidence of the existence of the practice of auditor’s opinion shopping in the research sample, it becomes important to test the study hypotheses based on the results extracted from Model No. (1) for auditor’s opinion shopping, using the logistic regression model.
4.3.2. The relationship between the characteristics of the board of directors and auditor's opinion shopping (the result of the study's fourth statistical hypothesis test):

In this part of the study, the researcher conducts a logistic regression analysis by running the statistical hypothesis test model No. (3) for analyzing the relationship between the characteristics of the board of directors and auditor’s opinion shopping extracted from operating model No. (1), in order to reach the nature of the relationship between the independent variables and the dependent variable in light of the level of significance of the variables. The results of the statistical analysis are shown in table (7).

From the results of table (7) in the first column (Panel A), the researcher finds that the explanatory power of the model is 15%, meaning that the independent variable related to the size of the board of directors and other control variables explain 15% of the change in the dependent variable of auditor's opinion shopping. It is also found that the independent variable related to the size of the board of directors is not significant, which indicates that there is no significant relationship between the size of the board of directors and auditor's opinion shopping. That is, the increase in the number of members of the board of directors will not affect the limitation of auditor's opinion shopping. It is also clear the significance of some of the control variables related to the size of the audit firm, the existence of loss, and the size of the client’s company, while the first has a negative sign indicating an inverse relationship between it and auditor's opinion shopping, meaning that the audit office’s affiliation with one of the big 4 audit firms works to limit auditor's opinion shopping, while The latter two carry a positive sign, that is, the existence of loss and the increase in the size of the client's company leads to an increase in the level of auditor’s opinion shopping. Therefore, the researcher can accept the first sub-hypothesis in the following null form:

\( H_{2.1}: \) There is no significant effect of the size of the board of directors on auditor's opinion shopping.
Table 7: Results of Logistic Regression (Testing the fourth Hypothesis of the Study)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Wald</td>
<td>Sig.</td>
</tr>
<tr>
<td>BDSIZEit</td>
<td>-0.649</td>
<td>0.030</td>
<td>0.335</td>
</tr>
<tr>
<td>%BBINDit</td>
<td>-2.901</td>
<td>3.459</td>
<td>0.013</td>
</tr>
<tr>
<td>DUALit</td>
<td>-0.254</td>
<td>1.077</td>
<td>0.299</td>
</tr>
<tr>
<td>BDWOMENit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%BEEXPl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUSDIZERt</td>
<td>-1.240</td>
<td>12.453</td>
<td>0.006</td>
</tr>
<tr>
<td>ROAlt</td>
<td>-1.111</td>
<td>0.657</td>
<td>0.394</td>
</tr>
<tr>
<td>LOSSit</td>
<td>1.972</td>
<td>5.816</td>
<td>0.008</td>
</tr>
<tr>
<td>LEVit</td>
<td>0.837</td>
<td>1.413</td>
<td>0.315</td>
</tr>
<tr>
<td>CRIit</td>
<td>0.084</td>
<td>0.875</td>
<td>0.324</td>
</tr>
<tr>
<td>FSIZEit</td>
<td>0.489</td>
<td>5.876</td>
<td>0.024</td>
</tr>
<tr>
<td>Constant</td>
<td>-5.368</td>
<td>10.165</td>
<td>0.001</td>
</tr>
<tr>
<td>Nagelkerke R² Square</td>
<td>15.00%</td>
<td>16.20%</td>
<td>15.00%</td>
</tr>
<tr>
<td>N</td>
<td>449</td>
<td>449</td>
<td>449</td>
</tr>
</tbody>
</table>
In the second column (Panel B) of the results of Table (7), the researcher finds that the explanatory power of the model is 16.2%, meaning that the independent variable related to the independence of the board of directors and other control variables explains 16.2% of the change in the dependent variable related to auditor's opinion shopping. It is also found that the independent variable related to the independence of the board of directors is significant, which indicates that there is a significant inverse effect of the percentage of independent members of the board of directors on auditor's opinion shopping. That is, the increase in the independent members of the board of directors leads to limiting auditor's opinion shopping. It is also clear the significance of the same control variables as in H\(_{4.1}\) related to the size of the audit firm, the existence of loss, and the size of the client’s company. Therefore, the researcher can accept the second sub-hypothesis in the following alternative form:

\(H_{2.2}: \text{There is a significant inverse effect of the independence of the board of directors on auditor’s opinion shopping.}\)

In the third column (Panel C) of the results of Table (7), the researcher finds that the explanatory power of the model is 15%, meaning that the independent variable of the dual role of the Chairman of Board of Directors and other control variables explain 15% of the change in the dependent variable of auditor’s opinion shopping. It also turns out that the independent variable of the dual role of chairman of the board of directors is not significant, which indicates that there is no significant relationship between the dual role and auditor's opinion shopping. In other words, the duality of the role of the chairman will not affect the limitation of auditor's opinion shopping. It is also clear the significance of the control variables of the audit firm size and the existence of loss. Therefore, the researcher can accept the third sub-hypothesis in the following null form:

\(H_{2.3}: \text{There is no significant effect of the dual role of the chairman of the board of directors on auditor’s opinion shopping.}\)

In the fourth column (Panel D) of the results of Table (7), the researcher finds that the explanatory power of the model is 14.7%,
meaning that the independent variable related to the presence of women in the board of directors and other control variables explain 14.7% of the change in the dependent variable of auditor’s opinion shopping. It is also found that the independent variable of the presence of women in the board of directors is not significant, which indicates that there is no significant relationship between the presence of women in the board of directors and auditor’s opinion shopping. That is, the presence of women in the board of directors will not affect the limitation of shopping for the opinion of the external auditor. It is also clear the significance of the control variables related to the audit firm size, the existence of loss and the size of the client’s company. Therefore, the researcher can accept the fourth sub-hypothesis in the following null form:

\[ H_{2.4}: \text{There is no significant effect of the presence of women in the board of directors on auditor’s opinion shopping.} \]

In the fifth column (Panel E) of the results of Table No. (7), the researcher finds that the explanatory power of the model is 16.4%, meaning that the independent variable related to the experience of the board of directors and other control variables explain 16.4% of the change in the dependent variable of opinion shopping. It also shows that the independent variable of experience in the board of directors is significant, which indicates that there is a significant inverse effect of the percentage of experts in the board of directors on auditor’s opinion shopping. That is, the increase in experts in the board of directors leads to limiting auditor’s opinion shopping. It is also clear the significance of the control variables related to the audit firm size, the existence of loss and the size of the client’s company. Therefore, the researcher can accept the fifth sub-hypothesis in the following alternative form:

\[ H_{2.5}: \text{There is a significant inverse effect of the board of directors’ experience on auditor’s opinion shopping.} \]

With regard to the sixth column (Panel F) related to the results of the pooled model, the researcher finds that the explanatory power of the model is 17.2%, that is, the independent variables related to the
characteristics of the board of directors (the size of the board of directors, the independence of the board of directors, the dual role of the chairman of the board of directors, the presence of women in the board of directors, experience in the board of directors) and other control variables explain 17.2% of the change in auditor's opinion shopping. It is also found that independence of the board of directors as well as the experience are significant, and they have a negative sign, meaning that an increase in both leads to a limitation in the auditor’s opinion shopping. While it is found that the size of the board of directors, the dual role of the chairman of the board and the presence of women are not significant, meaning that they do not have any significant effect on the auditor’s opinion shopping. It also shows the significance of the control variables related to the audit firm size, the existence of loss and the size of the client’s company. As such, the results of the sub-hypotheses tests agree with the pooled model. Then the researcher can partially accept the fourth statistical hypothesis in the following alternative form:

\[ H_2: \text{There is a significant effect of the characteristics of the board of directors on auditor's opinion shopping.} \]

### 4.4. Discussion and Interpretation of Results

The current study aims to identify whether Egyptian companies engage in auditor’s opinion shopping and examine the impact of the characteristics of the board of directors on auditor's opinion shopping in the Egyptian environment. In the light of the results of testing the hypotheses of the study, it is clear that the Egyptian companies successfully engage in auditor’s opinion shopping. In addition to that there is a significant relationship between some characteristics of corporate governance and auditor's opinion shopping. As it is shown that the independence and experience of the board of directors are significant in influencing auditor's opinion shopping. On the other hand, it is found that three characteristics are not significant. Some of the control variables related to the size of the audit firm, the existence of loss, and the size of the client's company are also found to be significant. Below is an explanation of these results.
The Impact of The Characteristics of the Board of Directors on Auditor’s Opinion Shopping:

The Variable of The Size of The Board of Directors: The results of this study proved that there is no significant relationship between the size of the board of directors and opinion shopping. This result agrees with the results of the study of Mobasser et al. (2021). This can be explained because what makes a difference is the independence and competence of the members of the board of directors and not only the size. The size becomes important if the proportion of independent and qualified members in the Board increases and not just the number, as the increase in the number of non-independent and unqualified members weakens the importance of the decisions of independent and qualified members. That is, the large size of the board is not an advantage. Because it is not about quantity, the most important thing is quality. That is, the majority of the members must be independent and experienced in order to achieve benefits from the large size of the board.

Board independence variable: The results of this study proved that there is a significant inverse relationship between the independence of the board of directors and auditor’s opinion shopping. The reason for this may be due to the effective influence of independent members in making decisions that lead to limiting the opportunistic behavior of management and then limit auditor's opinion shopping. The greater the independence of the board of directors of the client, the stronger the client's governance mechanisms, since the independent members preserve their reputation and avoid legal liability. Therefore, they have an incentive to prevent opportunistic behavior of management to pressure the auditor to issue a report that the client's financial statements do not deserve, in order to protect the rights of shareholders and other stakeholders.

The variable of role duality of the chairman of the board: The results of this study proved that there is no significant relationship between the duality of the role of the chairman of the board of directors and opinion shopping. The researcher believes that this result is due to the fact that the duality of this role has a disadvantage and an advantage, as the disadvantage is represented in weakening the independence of the chairman, and the advantage is represented in
increasing his awareness and experience in the affairs of the organization. Thus, the effect of the disadvantage may eliminate the effect of the advantage, and therefore it is not clear that there is a significant relationship between the role duality of the chairman and auditor’s opinion shopping.

**Board experience variable:** The results of the current study proved the existence of an inverse significant relationship between the experience of the Board of Directors and the auditor’s opinion shopping. This is due to the effective influence of members with financial and accounting expertise of the board of directors in making decisions that lead to limiting the opportunistic behavior of management and then limit auditor's opinion shopping. The higher percentage of accounting and financial experts in the board of directors of the client, the stronger the client's governance mechanisms, since the experienced members preserve their reputation and avoid legal liability. Therefore, they have an incentive to prevent opportunistic behavior of management to pressure the auditor to issue a report that the client's financial statements do not deserve, in order to protect the rights of shareholders and other stakeholders.

**The variable of the presence of women in the company’s board of directors:** The results of the current study showed that there was no significant relationship between the presence of women in the company’s board of directors and auditor’s opinion shopping. This means that in the Egyptian environment, women and men are equal in influencing opinion shopping. This differs from what the researcher expected, as psychological research showed that women often tend to be more conservative for fear of exposing to the risks of litigation, and therefore they will seek to prevent opportunistic actions of the management that would put pressure on the external auditor and influence his opinion, and then limit auditor’s opinion shopping. The reason for this may be due to the small number of women in the company's board of directors, as the researcher noticed during data dump unloading the data that in the case of women, the average number is almost only one female, which makes their decisions ineffective if the majority is taken.
As for the control variables, it is clear that some of the control variables related to the size of the audit firm, the existence of loss and the size of the client's company are significant in influencing the auditor's opinion shopping. Where the first has a negative sign, which indicates the existence of an inverse relationship between it and shopping for the auditor's opinion, that is, the audit firm's affiliation with one of the big 4 audit firms leads to limiting the shopping for the auditor's opinion, and the reason for this is due to the concern of big audit offices to maintain their reputation and adhere to the rules of the code of ethics, and at the same time they audit many clients, which raises their level of experience and reduces its economic dependence on one client, which leads to failure to respond to management pressures. The loss variable has a positive sign, meaning that the existence of a loss leads to an increase in auditor’s opinion shopping, as the management tries to improve the company’s image, which prompts it to search for a clean report, either by pressuring on the incumbent auditor or changing him and replacing with a new auditor in the hope of obtaining a clean report, which would raise the auditor’s opinion shopping level. The variable of the size of the client's company has a positive sign, meaning that the large size of the client's company leads to an increase in the level of auditor’s opinion shopping. By increasing the level of fees, and thus increasing auditor's opinion shopping.

5. Conclusion

Opinion shopping means the search for an auditor willing to issue a clean opinion whether by pressuring the incumbent auditor or dismissing him and appointing a new one. It is one of the threats of auditor’s independence. The discussion about opinion shopping implicitly indicates that different auditors have different attitudes toward acquiescence to management. Opinion shopping would not be an issue if all auditors acted exactly the same. Opinion shopping has many classifications. The most common classification is internal and external opinion shopping. Internal opinion shopping occurs when a client pressures the incumbent auditor to apply a less conservative audit approach when expressing an opinion on the financial
statements, in order to issue a clean report. External opinion shopping means changing the incumbent auditor and hiring another in the hope that he will issue a clean audit report.

The current study aims to identify whether Egyptian companies engage in auditor’s opinion shopping and examine the impact of the characteristics of the board of directors on auditor's opinion shopping in the Egyptian environment. The characteristics of the board of directors are represented in the size, the independence, role duality of the chairman, the presence of women and the financial experience of the board of directors. The researchers used a sample of 449 observations from non-financial companies listed on the Egyptian Stock Exchange during the period from 2017 to 2021. Using the logistic regression model, the results of hypothesis testing showed that the Egyptian companies successfully engage in auditor’s opinion shopping. In addition to that there is an inverse relationship between the independence of the board of directors and auditor's opinion shopping. As well as there is a significant inverse relationship between the financial expertise and auditor's opinion shopping. On the other hand, the results showed that there is no significant relationship between auditor's opinion shopping and each of the size, the role duality and the presence of women. This study has certain limitations as well. The researcher excluded financial companies because they are normally considered separately due to differences in their businesses and regulatory environment. Therefore, future studies could focus on financial companies given their vital role in the Egyptian financial market.
The Impact of The Characteristics of the Board of Directors on Auditor’s Opinion Shopping:

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The Impact of The Characteristics of the Board of Directors on Auditor’s Opinion Shopping: